Review Comments on the Source Control Evaluation and Source Control Alternatives Evaluation, Operable Unit 5, Swan Island Upland Facility, Portland, Oregon, Report Dated February 13, 2015

Submitted September 21, 2015

The following are EPA's comments from review of the Source Control Evaluation (SCE) and Source Control Alternatives Evaluation (SCAE) for operable unit (OU) 5 dated February 13, 2015 prepared by APEX on behalf of the Port of Portland. OU5 consists of approximately 5 acres of riverbank on the south (Willamette River) side of Swan Island.

Overview. The report recommends a source control measure for two erosion scarps totaling 109 feet in length along the OU5 riverbank consisting of re-grading of erosion areas followed by surface stabilization using re-vegetation above the flood elevation and riprap armoring below the flood elevation. EPA understands the recommendation has been modified at the request of the Oregon Department of Environmental Quality (ODEQ) for the action to be implemented for all scarps in front of the Daimler Leasehold (total scarp length of 308 feet). The Port is recommending an additional 520 feet of erosion scarp length be addressed in conjunction with the in-water remedy for Swan Island.

General Comments. EPA generally agrees with the analyses presented in the SCE/SCAE report and the recommended source control measure in Section 7. The following general comments are provided for consideration during preparation of future documents pertaining to the Swan Island Upland Facility OU5.

1. The April 2014 version of the Portland Harbor Preliminary Remediation Goals (PRGs) has been superseded by the draft Final version released by EPA for stakeholder review in August 2015. Remedial Action Objective (RAO) 9 pertains specifically to riverbanks with the goal of reducing migration of contaminants of concern in riverbanks to sediment and surface water such that levels are acceptable in sediment and surface water for human health and ecological exposures. For future evaluations, the 2015 RAO/PRGs should be adopted. For this current SCE/SCAE, a review of the RAO9 PRGs showed minor differences for various compounds between the April 2014 and the August 2015 (RAO 9) version of the PRG table. However, given the comparative technique used in the SCE, the differences are not expected to alter the outcome of analyses presented in the report.

2. The report states that apart from the erosion scarps, the overall riverbank is stable and that well established riprap and vegetation are successful in preventing erosion. The report further states a "judgmental" sampling approach was used to target those areas either most likely to have impacts or those areas with observed erosion impacts. Given that the environmental condition of riverbank soils over much of the riverbank have not been characterized, it is important that all riverbank soils be considered for characterization during remedial design efforts so that adequate institutional controls and/or a post source control monitoring plan can be developed. Monitoring of the exposed riverbank areas to inspect for new or enlarged existing scarps should take place for those areas planned for repair in conjunction with the in-water remedy. EPA recommends an annual inspection in early summer plus inspection shortly after any extreme high water event. Any newly exposed soils should be considered for sampling to ensure there is no unacceptable risk to Willamette River sediments.

3. The schematic design for the selected alternative (Figure 8 in the report) shows a "Sandy Gravel" filling the graded erosion scarp. No mention is made of this material in the report. EPA assumes the Sandy Gravel will be imported fill that will be verified clean through analytical testing. The results of analytical testing on imported fill samples should be compared with the Portland Harbor PRGs for RAO 9. Appropriate analytical methods should be used to ensure that laboratory detection limits are below each of these criteria. EPA recommends that an imported fill sampling and analysis plan be included in the remedial design and that representative samples of the imported fill be collected at a frequency of one sample for every 500 cubic yards of material. The Port should consult with ODEQ regarding their clean fill requirements for chemicals that do not have PRG values from the Portland Harbor FS.

4. EPA recommends the design for the selected alternative include placement of a high visibility marker (e.g., orange construction fencing) between the contaminated soil left in place and the overlying filter fabric to highlight areas where erosion has removed capping material.